MINUTE ITEM

4. (CONSULTING BOARD REVIEW OF OIL AND GAS LEASES - W. O. 2653.)

Following presentation of Calendar Item 24 attached, Mr. C. H. Keplinger appeared on behalf of Dr. Herman H. Kaveler and the firm of Keplinger and Wanenmacher, oil consultants, and reviewed the recommendations outlined in the final report, copy of which is attached.

The report was taken under submission with the understanding that the consultants and representatives of industry will be consulted further prior to final determination of an oil and gas leasing policy.

Mr. Kirkwood questioned if, in making the recommendation for having an adequate staff, the consultants had in mind any specific changes that should be made, to which Mr. Keplinger replied that the recommendation contemplated having an engineering and geological staff as strong as possible, because the data available to the Commission is confidential and the Commission must rely on its own staff to interpret it.

Assemblyman Allen Miller offered the services of the Assembly Judiciary Subcommittee on Tidelands at any future working meeting held for the purpose of reviewing the recommendations on oil and gas leasing policy. The Chairman assured Mr. Allen that he and the members of his committee would be given an opportunity to study all reports and to participate in further discussions before a final decision is made.

Mr. Paul K. Home of the Public Lands Committee of the Western Oil and Gas Association reported that while the oil industry's committee had met on two separate occasions with Dr. Kaveler and Mr. Wanenmacher on Mr. Keplinger for discussion, there were some points of difference; however, as the members of the oil industry had had the final report of the consultants for only a short time, they had not had an opportunity to consolidate an industry viewpoint. He asked that the industry be given an opportunity, at or prior to the next meeting of the Commission, to submit reasons for its difference in viewpoint from the recommendations of the consultants. The Chairman assured Mr. Home that this opportunity would be given to him and to the members of his committee.

Following further discussion, and upon suggestion of the Chairman, it was agreed that the Executive Officer, the consultants, representatives of industry, and members of the Legislative Subcommittee would hold an informal meeting the latter part of the week of February 24, in Sacramento, with the details to be worked out by the Executive Officer, and with as many of the members of the Commission as possible to be in attendance. Approximately a week later a regular Commission meeting is to be held, at which time final analyses will be presented for action.

Attachment
Calendar Item 24, including
Report of Consultants (17 pages)

CALENDAR ITEM

INFORMATIVE

24.

(CONSULTING BOARD REVIEW OF OIL AND GAS LEASES - W. O. 2653.)

On January 13, 1958 (Minute Item 4, pages 3732-3734) Dr. H. Kaveler and Mr. J. Wanenmacher of the firm of Keplinger and Wanenmacher presented progress reports on surveys undertaken for the Commission on oil and gas leasing procedures to secure the best interests of the State under existing law. At that time the Commission directed that final reports of the consultants be made public not later than the next meeting date of the Commission. Copies of the final joint report of the consultants have been distributed to all organizations in attendance at the January 13 meeting, to the Western Oil and Gas Association for further distribution to the association membership, and to Assemblymen Bruce F. Allen, Phillip Burton, Richard Hanna and Allen Miller, members of the Assembly Judiciary Subcommittee on Tidelands. Dr. H. Kaveler and Mr. C. H. Keplinger will be available to review the joint report for the Commission.

A special subcommittee of the Western Oil and Gas Association have prepared and submitted a draft of proposed lease form and representatives of industry have requested an opportunity to present statements on specific phases of the oil and gas leasing policy under consideration.

(COPY)

KEPLINGER & WANENMACHER
Consulting Petroleum Engineers
Tulsa, Oklahoma

HERMAN H. KAVELER
Petroleum Engineering and
Management Consultant
Tulsa, Oklahoma

February 3, 1958

State Lands Commission
State of California

IN RE: Recommended Tideland
Oil and Gas Leasing Policy

Gentlemen:

This final report setting forth recommendations in respect to tideland oil and gas leasing policy which the Commission has under consideration is a joint report of the consultants.

Appreciation is expressed to the Commission, to the Director and his staff, and to the sub-committee of the Lands Committee of the Western Oil and Gas Association for courtesies extended the consultants during their investigation of the problem.

The purpose of this report is to assist the Commission in determining general policy, procedure, and form of lease calculated to ' to the "best interest" of the State as lessor of petroleum minerals on tidelands. The problem presented is not readily resolved. Many words could be written were one to undertake a full discussion of the circumstances that incline opinion in one direction or the other. The bases for the numbered recommendations made herein are given in brief statements in respective like numbered paragraphs in the body of this report.

RECOMMENDATIONS

Our recommendations concerning tideland oil and gas leasing policy are:

I. Leasing policy must be flexible and adjusted to circumstance and the facts existing in respect to any area from time to time, since there is no way to know beforehand whether or not a tract of land will be "dry", "marginal" or "highly productive", as tidelands offer no more or no less an attractive venture for discovery of oil reserves

and for profit than did the upland areas except for the additional expense of tideland operations. The over-all problem of leasing tidelands is not substantially different than would be the leasing of uplands under similar circumstances. The Commission can do no more than exercise its best business judgment within the limits of statutory authority, since there is no formula that can remove the speculative or risk element in the search for and development of oil and gas production.

II. The Commission should maintain an adequate staff to provide its own source of interpretation of the facts that are developed in respect to any tract proposed to be leased, and in respect to producing operations on State lands.

III. Lands should be leased only on request of prospective bidders except when development drilling is required to offset drainage from State lands, and, leasing as to any separate structure should be "step-wise" -- giving wildcat tract leases first, with a portion of the land reserved for leasing as proven or probably productive in the event of discovery on any separate structure.

IV. The lands should be classified as "wildcat and exploratory" or as "proven or probably productive" for the Commission's purpose of fixing lease terms.

V. Wildcat acreage should be leased in tracts from 1-1/2 to 2 miles wide along the shore by 3 miles long (seaward), in the range of 2880 to 3840 acres in size; and, proven or probably productive tracts should be leased in the range of 1440 to 1920 acres in size with a 3-mile seaward dimension except when immediate or anticipated circumstances dictate larger or smaller size leases.

VI. Leases on wildcat lands should be awarded on the basis of a cash bonus bid. Leases on lands considered proven or probably productive should be offered on the basis of a royalty bid where the lease also specifies a first-year annual rental in an amount sufficient to be a cash bonus in addition.

VII. "Commencement of drilling operations" should be earth boring for the purpose of completing an operating well; 120 days should be granted as time between wells under the continuous drilling clause; time between wells should be counted commencing the day that drilling operations reach total depth of the well last drilled; the drilling term of wildcat leases should be 3 years, and, for proven or probably productive

leases, less than 3 years.

VIII. The Commission should offer wildcat leases on a cash bid with a specified royalty of $P/(5 + .01\ P)$ with a specified maximum not in excess of 40 to 50%; and, proven or probably productive leases on a royalty bid factor for the formula $P/(3 + .01\ P)$ with a specified maximum of 100% and an appropriately high first-year rental specified. The minimum royalty should at all times be 16-2/3% since the Commission cannot re-negotiate royalties in the stripper stage or in the case of otherwise uneconomic royalty burden.

IX. Gas and gas product royalties in wildcat leases should be at 20%, and, for proven or probably productive lands at 33-1/3%.

X. No provision to share cost of dehydration of oil should be made.

XI. The right to determine well-head prices for purpose of determining royalty due under any State lease should be reserved to the Commission in every lease.

XII. The right to take royalty in kind at specified points of delivery at any time should be reserved in every lease.

XIII. There should be no provision in any lease for the State's participation in future investment or expense of any required or advisable lease operation.

XIV. Leasing of the available 54,000 acres in Santa Barbara County should be initiated by granting not more than 5 segregated non-contiguous leases each covering 2880 to 3840 acres offered on a cash bonus bid and the remaining acreage should be held pending developments.

XV. The draft of a lease as proposed on February 11, 1958 by Western Oil and Gas Association should be adopted except for conflicting recommendations made in this report.

XVI. The Commission must exercise its right to reject bids found to be insufficient in bonus or royalty because it can only determine what lessees will offer for a lease after bids are received on one basis only.

XVII. "Average-production-per-well-per day" for purposes of computing royalty due on oil should be determined on the basis of monthly oil production, calendar days in the month,

the number of bona fide "producing" wells as determined by the Commission, days each such producing well operates, and counting operated injection wells as producing wells if such injection wells were previously approved by the Commission. Dually completed wells completed on approval of the Commission would be counted as a producing well for each separate zone that qualifies as a "producing" well.

XVIII. Every lease should define "zones" or "pools" or "common reservoirs" as synonymous terms meaning a stratum of porous, permeable rock containing a common accumulation of oil or gas constituting a separate source of supply from any other zone, pool or common reservoir, for the purposes that such a definition is required.

Respectfully submitted,

_____
Herman H. Kaveler

KEPLINGER AND WANENMACHER

By _____
J. M. Wanenmacher

By _____
C. H. Keplinger

I. THE BASIC FACT

Oil is widely distributed in the earth. It may accumulate in commercial quantity only in areas beneath which there is porous, permeable rock so disposed as to form a suitable subsurface trap for petroleum. Its presence in commercial quantity must be discovered by the laborious and often expensive process of boring a hole. Geologist, seismologist, engineers, or even "doodle-buggers" do not find oil. No one knows where oil is. The geologist may know of lithologic circumstance favorable to its accumulation, but real knowledge of the presence or absence of oil at any locality is established only by the drill. The "dry hole" record of the oil industry is evidence of the fact. Oil men, in their peculiar way, do not advertise their failures. Their talk is always of the "bonanza" well. The penalty for that characteristic viewpoint is that the public usually misunderstands the importance of the risk of dry holes in searching new areas and new structures for oil.

There is the additional fact that all "wildcat" discoveries are not bonanzas, and often bonanza wildcat discoveries are not indicative of a large field. There is also uncertainty about the areal extent of a newly discovered field, and, the quantity of oil prospectively recoverable per acre of productive area. What a newly discovered field will amount to must be established by the drilling of development wells and by performance of the respective reservoir itself.

It would obviously be to the best interest of the State if all lands ultimately found to be "dry" or "marginal" in reserves had been leased for a high cash bonus, and all lands ultimately proven highly productive had been leased for a high royalty. But, an oil and gas lease is a contract consummated before the fact is known. This is true of wildcat lands in particular. No one can know beforehand what an exploratory drilling venture will establish as a fact. That is often true of so-called "proven" lands adjoining discovery wells even on structures competently explored by the best geologic techniques.

The consequence of the uncertainties over wildcat drilling ventures, and/or the profitable reserve-in-place in extension drilling of so-called proven areas, is that the Commission must exercise best judgment in the face of known circumstance. There will never be a basis for an absolute determination of the choice to be made in the issuance of any lease. The concept of "right and wrong" in leasing oil and gas lands is a post facto privilege. The Commission must judge before the land is drilled and at the time an invitation to bid is issued whether a lease should command a high cash or a high royalty to serve the best interest of the State, just as the prospective lessee must judge the lease terms under which he will risk his capital resources under any leases to be offered by the State.

There is inevitably a contest of judgment between lessee and lessor. And, there are at least two important general considerations. Prospective oil and gas lands must be explored and developed before the resource can be reduced to a thing of value. A successful leasing policy must encourage development. The best interest of the State may not be served by a policy exacting always a large bonus or an unduly high royalty if such a policy creates circumstances that drive investors to only limited exploration of prospective lands. Sound policy would lead to exploration and development of all the lands of the State under the best terms to the lessor that accomplishes this result. Secondly, there is the matter of lease terms that permit a lessee to do the right kind of a job in recovering all of the oil available to economic recovery. Policy would not be sound if the terms of a lease led to wasteful practices or to premature abandonment of an oil producing property.

A summary viewpoint is that the Commission cannot adopt a fixed specific formula to guide it in the leasing of lands. Rather, there must be exercise of judgment under a general policy, and the provisions of any lease must be drawn according to circumstances existing at the time the lands are offered for lease. A sound leasing policy must be flexible. The test of any leasing policy is its long range result. A single event is not a test because of the extreme degree of uncertainty associated with the result of any drilling venture. The frequency of discovery of oil (the success ratio of wildcat wells) is amply demonstrated by the cumulated statistics of the California petroleum producing industry. There is no reason to expect that drilling on the tidelands will have any different aspect, from a discovery and production viewpoint, than was upland drilling. The cost of a tideland drill site is a factor that must be taken into account in estimating what lease terms will be attractive to industry.

II. IMPORTANCE OF A STAFF

The Commission properly has authority and should exercise its right to all the information obtained under exploration permits and from wells drilled on State lands. Such information must be assembled and competently interpreted in order that the Commission may be guided in the exercise of judgment. It is a matter of importance, if not of necessity, for the Commission to have and to maintain an adequate staff to keep it informed in respect to the exploration and development of its mineral resource. The Commission should be in a position of having its own interpretation of the information that applies to the evaluation of any tract proposed to be leased. The fact that information respecting the drilling and completion of wells is by statute private information, available only to the Commission in noninterpreted form, makes it more important than in other jurisdictions for the Commission to have a staff sufficient to keep it

well advised on developments on State lands. Further, the Commission needs a staff to properly enforce the terms of any lease issued by the State.

III. WHEN TO LEASE

As a matter of principle, except when it is necessary to develop State lands to prevent drainage by offset development, the Commission should follow the policy of offering lands only on request of one or more prospective bidders, and then only such lands as permit "step-wise" leasing on any one prospect or known structure.

IV. LAND CLASSIFICATION

The Commission should classify lands, at least for its own purposes in leasing and fixing lease terms, either as "wildcat" or as "proven or probably productive".

Wildcat or "exploratory" lands would be those embracing an area where drilling is required to establish the existance of a structural feature and the presence or absence of commercial oil or gas production.

Proven or probably productive lands would be those embracing part of a geologic structure proven productive by previous drilling. The uncertainties associated with the areal extent and productivity of prospective extensions of any known pool will require various classifications of proven lands which will be reflected in the terms of each lease offered in respect to any so-called proven lands.

V. SIZE AND SHAPE OF LEASED TRACTS

The statutory limitation on the size of any single tideland lease is 5,760 acres (Sec. 6871.4). Each lease should extend in one dimension 3 miles seaward from the shoreward boundary and be 1-1/2 to 2 miles wide (2880 to 3840 acres) for land classified as wildcat or exploratory, and, for proven or probably productive lands, from 3/4 to 1 mile wide (1440 to 1920 acres) with a 3-mile seaward length.

The benefit of preventing corridors on the seaward side of any tract and eliminating the question of the accessibility of the seaward side of any structure by upland drilling has sufficient merit to dictate the 3-mile seaward dimension of any tract. The fact that only a part of a tract

extending 3 miles seaward may be structurally favorable, causing only part of the acreage in the tract to be regarded as possibly productive, is objectionable only in that a cash bonus bid on a per-acre of lease basis would be less than the per-acre bonus if only the favorable portion of a productive tract were included, thereby giving a false impression of the actual bonus paid to those not advised of the facts.

When subsurface structures are sharp and have a strike parallel to the shore line, there is also the problem of including enough productive area (and prospectively recoverable oil) in a lease to justify the investment in a drill site offshore. This must be taken into account in setting the width of the lease.

It is obvious that no one can set down a final rule in respect to lease size, particularly in respect to proven or probably productive acreage. The Commission's decision for tracts in this category must be guided by what is found by the wildcat discovery well and the development drilling on the wildcat tract.

The size of wildcat tracts (2880 to 3840 acres) recommended in this section is reasonable as a starting point. The Commission might find circumstances that would dictate wildcat lease sizes up to the statutory maximum or even less than 2880 acres, though the latter is not likely.

The same comment would apply to the recommendation that proven or probably productive lands might be leased in larger than 1920-acre tracts or smaller than 1440 acres. The Commission would have to consider the existing circumstances and also consider possible problems in the next succeeding lease offering whenever any lease on a proven productive structure is offered.

Therefore, the size of the proven or probably productive lease recommended herein is nothing more at present than an effort to give expression to a recommended general policy of step-wise leasing whereby wildcat lands would be leased in larger blocks, and proven or probably productive lands would be leased in smaller blocks. And the State would take its chance that the wildcat block would be drilled with no resulting depreciation of the ultimate value of the offsetting lands held back over the entire area ultimately to be leased.

VI. ALTERNATIVE BASES OF BIDDING

The alternatives offered the Commission (Sec. 6827) are to award a lease on the basis of "...the highest cash bonus, in addition to satisfying all other provisions of the lease..." -- where other provisions

of the lease would include (for purposes of immediate discussion) the size and description of the lands covered by the lease, a sliding scale royalty of not less than 16-2/3% to a maximum percentage if specified in the invitation to bid, and an annual rental as specified in the invitation to bid of not less than $1.00 per acre. Royalty on gas would be specified and be not less than 16-2/3%. This is the type of lease recommended for wildcat or exploratory lands. Alternatively, a lease may be issued on the basis of "...the highest rate of royalty in addition to satisfying all other provisions of the lease...", which is recommended as the type of lease that would be to the best interest of the State in respect to lands proven or probably productive, provided, that the annual rental provision be used in a manner to insure at least a substantial cash payment as one of the specified "other provisions" of the lease.

Any bidder on a royalty basis would adjust a royalty bid to be consistent with any direct cash payment required in the lease. Nevertheless, it appears to be better judgment, in the face of the uncertainties associated with the determination of whether or not a lease is proven or probably productive, or highly productive or marginal, to obtain for the State a cash sum as partial consideration in every lease issued. If a cash bonus could not be specified in a royalty bid lease, then the annual rental for the first year could be set at an appropriate sum so that the cash bonus paid would be technically regarded as the first-year rental. This is the procedure recommended for proven or probably productive land leasing.

The amount of money to be specified as a first-year rental (for purposes of a cash bonus requirement) in a royalty-bid lease must be a matter of judgment on the part of the Commission in the face of the circumstances existing at the time the particular lands are offered for lease.

In respect to any untested area or structure, the best interest of the State would be served by first issuing leases covering a part of the area or structure for wildcat drilling. After the wildcat leases are tested the Commission will have information to judge the terms to be specified in a lease covering adjacent lands.

VII. COMMENCE DRILLING AND CONTINUOUS DRILLING CLAUSE

Sec. 6829.1 provides for a "drilling term" of not more than 3 years, within which time lessee must "...commence operations for the drilling of a well..." The drilling term may be extended by the Commission.

It is recommended that every lease define "commence operations for the drilling of a well" as earth boring with the intention of

completing an operating well according to accepted practices in the event oil and gas are found in commercial quantity, so as to exclude for this purpose any operations on the lease that are operations for investigative purposes or operations preliminary to the commencement of boring to complete a producing well.

It is recommended that the lease require continuous drilling until lease obligations are met, allowing 120 days between wells unless the time be extended by the Commission, and, that the time between wells be counted from the day that drilling to total depth ceases in the last well drilled.

A drilling term of 3 years in all wildcat leases and a lesser term for proven or probably productive land leases is recommended.

VIII. WHAT ROYALTY ON OIL?

The Legislature has prescribed a sliding scale royalty beginning at not less than 16-2/3% for oil. The Commission may fix a minimum and a maximum royalty to be specified in the invitation to bid, and must determine the sliding scale formula based upon the average production of oil per well per day.

A sliding scale formula would not in itself insure a "high" royalty in fact. As a practical matter, whether by design or not, the average production per day per well can be held to rates of royalties in the range of 25% or less on the average rather than to rates in the higher ranges of royalties that a sliding scale formula on its face might suggest.

If "high" royalty were considered appropriate and to the best interest of the State, the only device that could be used to accomplish that type of royalty would be to set a high minimum royalty or to rely upon both a high minimum royalty and a high bid royalty-multiplying-factor. The Commission must give consideration to an important fact in weighing the advisability of setting a high minimum royalty in a royalty-bid lease. No lessee can accomplish his primary responsibility, namely, the recovery of the maximum amount of oil in any known pool, if the royalty rate applying to low volume (stripper production) is substantially in excess of 16-2/3%. The Commission cannot amend a lease in respect to royalty provisions in the event an operator finds himself operating at a loss due to burdensome excessive royalty. It would be to the best interest of the State to follow a policy that would insure maximum ultimate economic recovery of oil and gas. Abandonment of a producing property for economic reasons because of a royalty burden would create waste of a valuable resource.

An additional consideration is the fact that the Legislature has given the Commission authority to at least encourage secondary recovery operations, if not to require secondary recovery operations, under Sec. 6830. It would certainly be to the best interest of the State if all the tideland pools susceptible to secondary recovery operations were subjected to that method of operation. The additional cost and expense of secondary recovery operations should be solely on the lessee, who may not be in a position to carry on such operations in the average or less than average pool if a minimum royalty were set at too high a level.

Another consideration that bears upon the question is the benefit to the State of obtaining a substantial cash consideration for every lease issued. For wildcat lands this would be a cash-bonus-bid; for proven or probably productive lands the cash would come from a specified first-year rental. The amount of cash realized in either case would bear some direct relation to the royalty provision.

And finally, there is the important consideration that the State would find it extremely difficult to impose controls that would force an operator to operate wells at the maximum rate at which they could be producted without waste, when it is obviously to the advantage of the lessee to produce wells under a sliding scale royalty at the lower rate of production per well per day.

Accordingly, the recommended sliding scale royalty formula on oil to be specified in wildcat leases is the following:

$$R = \frac{P}{5 + 0.01\,P}$$

with a maximum royalty specified in the bid of not to exceed 40 to 50%, which formula would produce royalty as follows:

Production Bbls/Well Per Day	Percentage Royalty
100 or less	16.67
200	28.6
300	37.6
500 or more	50.0

For leases classified as proven or probably productive, the recommended sliding scale royalty form is:

$$R = \frac{P}{3 + 0.01\,P} \times (\text{Bid Factor})$$

with specified maximum royalty of 100% along with sufficient cash consideration in the form of a specified first-year annual rental, which formula would produce the following royalty schedule for a bid factor of one:

Production Bbls/Well Per Day	Percentage Royalty
60 or less	16.67
100	25
200	40
300	50.5
500	62.5
750	71.3

In our opinion, the first-year rental under a royalty-bid lease should always be high enough to avoid a royalty bid so high that premature abandonment of the leasehold would result.

IX. ROYALTY ON GAS AND PRODUCTS FROM GAS

The recommended royalty on gas and products from gas is 20 to 33-1/3%, the former for wildcat leases and the latter for proven or probably productive leases when circumstance justifies the maximum.

X. ALLOWANCE FOR DEHYDRATION

The Commission should continue its recent policy of making no allowance for dehydration of oil or gas.

XI. SELLING PRICE FOR ROYALTY PURPOSES

Each lease should provide that the well-head selling price for purposes of determining royalty due on both oil and gas saved and sold be the well-head price as determined by the Commission at any time and from time to time adopting, in substance, the like provision in Federal leases (Title 30 CFR 221.47) stipulating that the Commission in the determination of well-head price shall take into account posted field prices (if any), actual selling price if to a third party, prices paid elsewhere in the State, bonuses paid (if any), and allowable transportation costs (if any)

for oil or natural gas of similar quality and location.

The Commission should require certified copies of all contracts or pertinent parts of contracts pertaining to any sale of oil or gas from any State lease.

XII. TAKING IN KIND

Each lease should provide for the receipt of royalty oil or gas in kind, at the option of the State at any time and from time to time, conditioned upon the taking of gas as produced, and require storage for 2 days current production of the State's share of the oil produced in tanks at locations at the place of delivery of lessee's share of the oil produced.

XIII. LEASE PROVISION COMMITTING LESSOR TO PARTICIPATE IN INVESTMENT AND EXPENSE

The Commission should not include in any lease provisions requiring the State to share in the cost of investment or operating expense for any gas or water injection pressure maintenance operations on any lease. If expenditures for prevention of subsidence or increased recovery are found to be necessary, the circumstances existing at the time should determine what the State should or should not do.

XIV. LEASING PROCEDURE RE SANTA BARBARA

If the Commission adopted the general policy herein recommended, the approximately 54,000 acres of tidelands from Elwood to Guadalupe in Santa Barbara County would be leased in a step-wise manner by the issuance of not more than 5 segregated and non-contiguous tracts on a wildcat acreage basis; the principal terms of the lease would be:

Specified Provisions	Acres: 2880 to 3840 Annual Rental: $1.00 per acre Drilling Term: 3 years Royalty Rate: P/(5+.01P) with 16-2/3% min. and 40 to 50% max.
Bid Provision	Cash bonus

Leasing of any additional tracts would be withheld until such time as the results of drilling on one or more of the 5 selected tracts are available. Additional lands would be offered at an opportune time on a wildcat basis or on a proven or probably productive basis.

The terms of a lease covering proven or probably productive lands would be determined at that future time, but, by way of comparison to illustrate the recommended policy, the terms might be:

Specified Provisions	Acres: 1440 to 1920 (or more) Annual Rental: 1st year to be determined, and, thereafter $50 per acre Drilling Term: Less than 3 years
Bid Provision	A multiplier to royalty rate formula P/(3+.01P) but not less than 16-2/3% royalty.

XV. THE FORM OF LEASE

The consultants have had two meetings with representatives of the Public Lands Committee of the Western Oil and Gas Association for the purpose of discussing lease form and lease provisions. The Association will present a draft of a lease identified as "Draft Proposed to Commission February 11, 1958", which draft meets with our approval except for differences between it and recommendations made herein, and except for certain matters that involve legal questions or administrative policy not in the province of the consultants.

XVI. REJECTING BIDS

The Legislature very properly gave the Commission authority to reject all bids. Since the Commission has only the strictly limited means of receiving sealed bids as the means for determining what interest prospective lessees have in any tract, or of determining what the "market" will offer for a lease at any time, it is more important than ever that the Commission not hesitate at any time to reject all bids when the bids received fall below an acceptable level in cash bonus or royalty (or both considered together).

XVII. DETERMINATION OF PRODUCTION PER WELL PER DAY

Every lease should reserve to the Commission the right to determine at any time and from time to time the number of producing wells to be counted each month for the purpose of determining the production per well per day used in the sliding scale royalty formula for oil. The Commission should regard as a producing well for this purpose only a well which produces in any month an amount of oil or gas sufficient to pay for the cost of its operation.

The Commission should also count as a producing well for the purpose of oil royalty computation all wells operated in any month as gas or water injection wells under any reservoir pressure maintenance plan approved by the Commission.

The Commission should continue its policy of determining rate of oil production on the basis of monthly production and operated producing well-days.

Dually completed producing wells approved by the Commission should be counted as a producing well for each zone that meets the Commission's test of a producing well in any month.

XVIII. DEFINITION OF ZONES AND POOLS

For purposes of granting permits for dual completion, or, for determining obligations for development and for meeting offsetting drainage, the lease should define "pools" or "common reservoirs" as a stratum of porous, permeable rock containing a common accumulation of oil or gas and constituting a separate source of supply separated from any other common source of supply by impermeable rock (Sec. 6830).

SUMMARY

The viewpoints expressed in this report may be briefly summarized as follows: A leasing policy is recommended, which in principle --

(a) Reserves some lands for leasing until wildcat drilling has established the presence of oil or gas on a geologic structure:

(b) Provides for step-wise leasing of wildcat lands for high cash bonus, and, any resulting proven or probably productive lands on a high royalty basis, provided that the latter lands also carried an appropriate cash payment consideration in the form of a first-year rental;

(c) Measures the success of leasing policy over the long rather than short term, recognizing that some reserved lands will be shown to be dry or marginal; that high royalty bids in the form recommended on the possibly few proven leases to be offered will, in the long run, out weigh the loss of bonuses that might otherwise have been collected on lands withheld had they been leased as wildcat lands;

(d) Considers the high sliding scale royalty bid without any cash consideration as not to the best interest of the State; and the high sliding scale royalty bid as not insuring a high royalty payment; and, too high royalty as leading to premature abandonment, waste, and loss of royalty when a pool or field nears marginal status;

(e) Recognizes that the provisions of any lease must be formulated on the basis of circumstance existing from time to time, and the Commission must adopt a flexible rather than a fixed policy; and

(f) Is based on the necessity for the Commission to exercise its right to reject all bids, and to re-offer the lands when the highest bid on the basis offered does not appear to be to the best interest of the State.